

**Comments on CALFED Draft  
Programmatic EIS/EIR**

**June 23, 1998**

The Groundwater Resources Association of California submits the following comments on the Draft CALFED Programmatic EIS/EIR.

GRA acknowledges the unprecedented scale of the CALFED effort and commends its project managers, staff and consultants for their work to find solutions to the complex and interrelated problems associated with the Delta.

The open, collaborative effort to seek consensus among state, federal, and local agencies as well as interest groups, stakeholders and local communities on water issues is a necessary break from traditional water project planning and is to be commended.

We support in concept the objectives of the CALFED program, i.e., improvements in ecosystem quality, water supply reliability, water quality improvements, and improved levee integrity. We are also in support of the CALFED mission to "*... develop a long-term comprehensive plan that will restore ecological health and improve water management for beneficial uses of the Bay-Delta System*".

**Potential Impacts**

According to the Draft EIR/EIS, there are three general types of potential programmatic-induced impacts on groundwater resources.

1. Reductions in groundwater quality.
2. Declines in water levels (or increases that cause drainage problems).
3. Land subsidence induced by water level declines.

Potential impact 1, reductions in groundwater quality and potential impact 3, land subsidence induced by water level declines, can be avoided by monitoring and reducing pumping in areas likely to experience these impacts. Other sources of water would need to be available to meet existing and future water requirements in these areas. The Draft EIS/EIR should indicate the source of additional water needed for these areas, and how it will avoid any negative impacts to groundwater quality and subsidence.

Potential impact 2, declines in water levels, may be a more widespread and therefore significant impact and needs to be adequately addressed. Without increasing monitoring to adequate levels, it may be difficult to identify impacts until adverse consequences are realized. The Draft EIS/EIR should address monitoring needs and current and future impacts to groundwater levels.

In some areas all three categories of impacts could be reduced through artificial recharge and conjunctive use projects.

**Conjunctive use**

In many areas surface water recharges groundwater basins by infiltrating through stream and riverbeds. In other areas, groundwater discharges supply all or significant flows to streams.

the root zone. Given the connection between surface water and groundwater, it is important to consider groundwater resources when managing surface water and to manage groundwater in conjunction with surface water when possible.

GRA supports CALFED's efforts to facilitate additional conjunctive use and groundwater banking opportunities as one way to help maximize the overall water supply and protect groundwater resources. Conjunctive use programs should be under local control and provide benefit for local water users where needed. The water rights associated with conjunctive use programs should be clearly articulated during the planning phase.

### **Groundwater Use**

Currently the pertinent features of the regulatory framework of groundwater management in California are:

- California landowners have correlative rights to extract as much groundwater as they can put to beneficial use. The state does not have statutory authority to manage groundwater, and no systematic statewide groundwater management program exists.
- Only a small fraction of the state's groundwater is actively managed under a formal program. AB 3030 allows certain local agencies to manage groundwater. Cities and counties may adopt ordinances to manage groundwater, but this has not occurred to a significant degree.
- Twelve groundwater management districts have been established through special legislation. In some basins, the courts have adjudicated disputes over groundwater pumping.

Given the relatively unregulated nature of groundwater use in California, care must be given to programs that have the potential to impact the resource. When surface water is reallocated for other uses or redistributed to different areas, groundwater resources may consequently be impacted.

CALFED and its member agencies will need to identify all potential impacts to groundwater from individual projects and alter the project to reduce impacts or adequately mitigate.

### **Water Use Efficiency**

Wise management of water, like any valuable resource, includes maximizing its efficient use. GRA supports the efficient use of both surface water and groundwater and acknowledges the wisdom of establishing Best Management Practices for both urban and agricultural water use. However, the proposed water use efficiency programs may result in a reduction in groundwater recharge not addressed in the EIS/EIR.

When farmland is irrigated with imported or developed surface water, some of that water percolates past the root zone and contributes to groundwater recharge. In some basins, this groundwater is relied on for use during droughts and other times when surface water supplies are not available or are reduced. Some of the agricultural BMPs would result in decreased groundwater recharge.

In some areas of California, in certain years, stored surface water must be dumped from reservoirs at the end of the irrigation season to make room for storage of the coming winter's flood waters. Irrigation practices that put this water into groundwater storage for later beneficial uses should be encouraged. Not every BMP is best suited for every area in California. The

EIS/EIR needs to consider water use efficiency impacts on the overall water budgets for different areas and advocate implementation of BMPs that actually result in water savings.

### **Cumulative impacts**

The CALFED program, along with a number of other programs, has the potential to add to the cumulative impacts on groundwater resources.

*CVPIA*—The *Central Valley Project Improvement Act* seeks to dedicate to the environment a significant volume of water (800,000 acre feet pre year) that is currently being put to other beneficial uses. CVP contractors may increase groundwater use to make up for reduced project water. Reductions in CVP water in the San Joaquin and Tulare Lake regions have caused an increase in groundwater pumping that exacerbated a drought induced decline in water levels. The California Water Plan Update of 1998 states "Long-term cutbacks in surface water supplies south of the Delta will also translate into long-term increases in groundwater extractions south of the Delta."

*SWRCB*—The State Water Resources Control Board's *1995 Bay-Delta Water Quality Control Plan* includes alternatives intended to help meet water quality objectives in the San Francisco-San Joaquin Bay Delta. Some of these proposals involve increasing flows to the Delta with water that is currently being used for other beneficial purposes. Affected water users may increase groundwater withdrawals to replace the surface water.

*Population Increase*—Population growth in California is already placing increasing pressures on groundwater resources. The California Water Plan Update of 1998 estimates a statewide increase in groundwater overdraft of 160,000 acre feet per year above the 1990 base year overdraft reported in the previous California Water Plan Update.

The CALFED Draft EIS/EIR needs to address the cumulative impacts of its programs in light of the above programs. New programs should not be implemented if they are detrimental to groundwater quality or quantity. Assurances must be given that areas that are depending on groundwater to meet current and/or future supply needs will not have those supplies negatively impacted.

### **Water Transfers**

The Draft EIS/EIR states "Water Transfers could improve the distribution of water and reduce reliance on groundwater in some areas. Adverse impacts could occur if the transfers induce growth. Groundwater substitution transfers may contribute to overdraft, may directly affect accretion to or depletion from streams, may result in subsidence, and may increase pumping costs for other groundwater users."

Reallocating surface water is the least expensive and quickest way to obtain additional water for new uses. But it is not a long-term solution and may cause negative impacts in areas from which the water is transferred. What is needed is a long-term vision that increases surface and groundwater supplies. This is a component of CALFED that deserves high priority.

### **Coordinated Watershed Management**

GRA is in support of the stated need for a coordinated watershed management strategy that integrates various local and regional interests and needs with watershed management objectives. Programs that have beneficial impacts on groundwater quality and reverse local declines in groundwater levels should be encouraged.

Coordinating widely separated, locally implemented watershed management efforts will be necessary. This will result in more effective expenditure of funds, actions, and planning within watersheds.

### **Ecosystem Restoration Program**

According to the Draft EIS/EIR, the Ecosystem Restoration Program "would probably impact groundwater indirectly through its effects on surface water. Reductions in surface water may lead to increased use of groundwater. Beneficial impacts are expected due to increased groundwater recharge from increased stream flows in the Sacramento and San Joaquin River regions."

The Ecosystem Restoration Program objectives include expanding potential riparian floodplains, restoring natural stream meanders and stream flows and expanding the storage, detention, and bypass capacity of selected rivers. These actions, undertaken to restore riparian and aquatic habitat, have the added benefit of potentially increasing groundwater recharge.

Ecosystem restoration projects that reallocate, to environmental uses, surface water currently being put to beneficial uses may result in the affected parties pumping groundwater. In these cases, careful monitoring and responsible management will be necessary to prevent overdraft and other associated adverse impacts.

Expanding riparian floodplains will result in land use changes and socio-economic impacts to local areas. These and other impacts should be carefully studied and mitigated. Farmland permanently removed from agricultural production will impact the local economies

### **Conclusion**

Groundwater will continue to play an important role in California's water supply and economy. As California's population grows, and as increasing amounts of surface water are dedicated to environmental purposes, the relative importance of groundwater increases.

GRA supports CALFED programs that promote our dedication to "resource management that protects and improves groundwater through education and technical leadership."

GRA is willing to assist CALFED and its member agencies in achieving mutually desirable goals and to make sure that, given the importance of groundwater, it gets the attention it deserves.

GRA will monitor CALFED's progress to help insure the protection and sound management of California's groundwater resources.

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